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## CHAPTER 9 MULTIPLE CHOICE QUIZ

1. Which of the following graphs represents a quadratic function



d. I \& III
a. I
b. II
c. III
2. What is the y-intercept for the following graph

a. $(0,0)$
b. $(-2,0)$
c. $(0,-2)$
d. Choice $A$ and $B$
3. What is the vertex for the following function: $y=-2|x-7|+8$ ?
a. $(8,7)$
b. $(7,8)$
c. $(-7,8)$
d. $(8,-7)$
4. State the axis of symmetry for the following graph:

a. $x=0$
b. $y=-2$
c. $x=-2$
d. $y=0$
5. What is the slope for the following function: $y=-\frac{4}{5}|x-2|-8$ ? State whether it opens up or down.
a. Opens Down
Slope $= \pm 8$
b. Opens Down
Slope $= \pm \frac{4}{5}$
c. Opens Up
Slope $= \pm 8$
d. Opens Up
Slope $= \pm \frac{4}{5}$
$\qquad$
$\qquad$ Date: $\qquad$
6. State the domain and the range for the following:

a. Domain: $\mathbb{R}$ (all reals)
Range: $y \geq-1$
b. Domain: $\mathbb{R}$ (all reals)
Range: $y \leq-1$
c. Domain: $x \geq-1$
Range: $\mathbb{R}$ (all reals)
d. Domain: $x \leq-1$
Range: $\mathbb{R}$ (all reals)
7. Which of the following graphs represents $f(x)=-2(x-3)^{2}+2$ ?
a.

b.

c.

d.

8. Given $f(x)=x^{2}$ is the parent function, what is the equation of $g(x)$ if it has been translated 6 right, vertically stretched by 4 units and translated 5 units down.
a. $g(x)=4(x-6)^{2}+5$
b. $g(x)=4(x-6)^{2}-5$
c. $g(x)=4(x+6)^{2}-5$
d. $g(x)=4(x+6)^{2}-5$

## Extra Credit

9. Which of the following absolute value functions opens up, has a vertex at $(3,2)$, and has a slope of $\pm 5$
a. $f(x)=-5|x-3|+2$
b. $f(x)=5|x+3|-2$
c. $f(x)=5|x-3|+2$
d. $f(x)=5|x+3|+2$
10. What is the domain and range of the following

a. Domain: $\mathbb{R}$ (all reals) Range: $y \geq 0$
b. Domain: $\mathbb{R}$ (all reals)
Range: $y \leq 0$
c. Domain: $x \geq 0$
Range: $y \geq 0$
d. Domain: $x \leq 0$ Range: $y \leq 0$
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$\qquad$ Date: $\qquad$

CHAPTER 9 MULTIPLE CHOICE

ANSWER KEY

| Question \# | Answer |
| :--- | :--- |
| 1 | C |
| 2 | A |
| 3 | B |
| 4 | C |
| 5 | B |
| 6 | $B$ |
| 7 | D |
| 8 | B |
| EXTRA | CREDIT |
| 9 | C |
| 10 | C |

